Measuring the Communication Performance of Individuals who use AAC

Katya Hill, Ph.D., CCC-SLP and Barry Romich, P.E.
AAC Institute

ABSTRACT

Two National Institutes of Health (NIH) grants have supported the development of language activity monitoring (LAM). LAM data can be analyzed using the AAC Performance Report Tool (PeRT). This poster summarizes the use of these tools to support AAC evidence-based practice.

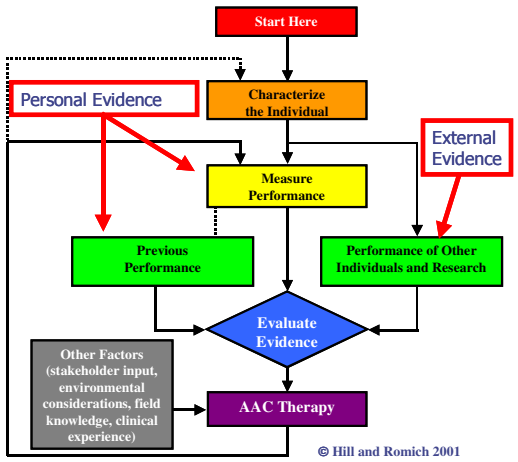
AAC Values

Many people who use AAC indicate that the most important things to them are:
1) Saying exactly what they want to say.
2) Saying it as fast as they can.

AAC service delivery must honor these values.

AAC Evidence-Based Practice

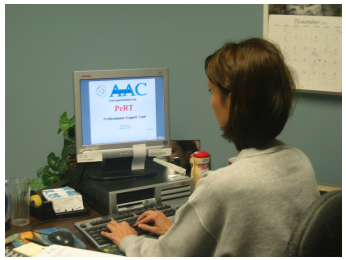
AAC evidence-based practice consists of:
1) Formulating and asking meaningful, value-based, prioritized questions.
2) Searching and analyzing external evidence.
3) Collecting and reviewing personal evidence (communication performance.)
4) Using the evidence to guide assessment and intervention.



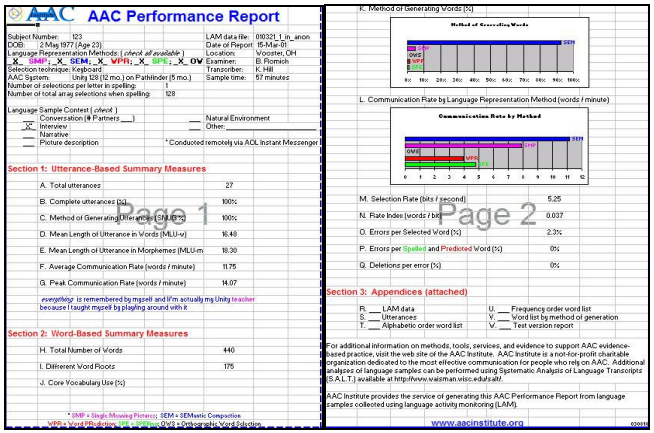
AAC performance measurement serves as the foundation on which the evidence-based practitioner makes service delivery decisions. Use of these tools and methods is consistent with the ASHA Scope of Practice and the Knowledge and Skills document.

U-LAM is software that supports AAC language sample collection and **PeRT** is software that facilitates the generation of the **AAC Performance Report** of seventeen quantitative summary measures of communication performance. This application supports the analysis of **language activity monitoring (LAM)** data by uploading a saved logfile, segmenting the utterances, and performing the analysis.

Collecting an AAC language sample using U-LAM



Analyzing an AAC language sample using PeRT



Language Sample Collection

Language activity monitoring (LAM) is the automatic recording of the time and content of AAC system language events.

EXAMPLE: From actual logged sample interview
"It's faster than spelling everything out which is what I used to do "

```
16:26:05 SEM "It's "      16:26:48 SPE "g"
16:26:08 SEM "faster "    16:26:49 SPE " "
16:26:14 SEM "than "      16:26:58 SEM "everything "
16:26:41 SPE "sp"         16:27:02 SEM "out "
16:26:42 SPE "e"          16:27:05 SEM "which "
16:26:45 SPE "l"          16:27:08 SEM "is "
16:26:45 SPE "l"          16:27:11 SEM "what "
16:26:46 SPE "i"          16:27:14 SEM "I "
16:26:47 SPE "n"          16:27:19 SEM "used "
                          16:27:22 SEM "to do "
```

LAM is a built-in feature in modern high performance AAC systems. Language samples can be collected from any speech output AAC system that doesn't have LAM by using U-LAM software with a PC.

Language samples can be collected using conversation, interview, picture description, therapy activities, or in the natural environment.

Language Sample Analysis

LAM data can be analyzed to report many quantitative summary measures of communication performance. Performance Report Tool (PeRT) generates the AAC Performance Report of seventeen summary measures plus six appendices. The analyses of periodic language samples can serve as a history of progress.

ACKNOWLEDGEMENT

The National Institute for Deafness and other Communication Disorders of NIH has provided funding for two grants on the development of LAM tools.

www.aacinstitute.org